India's potential market size should make it near the top of the Top Market countries; however, constantly shifting regulatory barriers and complex tax schemes limit the large scale investments necessary to fully realize the country's potential.

India has been a disappointment for many service industries over the last several years as high expectations for greater export opportunities have not been realized. Despite some positive developments, including the Government of India's reduction of certain foreign direct investment (FDI) restrictions, retailers often remain reluctant to invest in the market. This is due to specific conditions, including greater capital requirements that are tied to foreign investments and constantly shifting barriers to access created by some government officials' stances in certain markets.

India is one of the largest consumers of food in the world and is the third largest producer of agriculture. The food service industry is estimated to be nearly \$50 billion and is anticipated to grow at 10 percent annually for the next several years. The Global Cold Chain Alliance estimates that the cold storage market in India has been growing at a rate of 25 percent per year, to reach \$8 billion in 2014. 41

Despite the growth, India sees nearly 40 percent of its produce go to waste annually due to inadequate cold chain infrastructure; one third of its losses occur during storage and transit⁴². Experts have estimated that India has less than half the cold chain capacity necessary to meet its current needs and will require as much as \$100 billion of infrastructure investment over many years.

In 2013, *The Economist* published an article about the eagerness of western retailers such as Walmart, Carrefour and Tesco to penetrate the Indian market. These companies believe that they would revolutionize shopping in India, where only 2-3 percent of groceries are bought in formal stores. ⁴³ The rest are purchased in the 12 million local markets which rely on an inefficient supply chain where farmers auction products to middlemen; often up to five middlemen can be involved with the distribution of a single onion. The farms themselves are small and do not have the economies of

Competitiveness Index	Score
Government/Regulatory	3.8
Labor Force	4.1
Infrastructure	3.8
Demand	4.7
Economic Statistics	1 Of Dillion
Population	1.26 Billion
Cold Storage Capacity	131 M/m ³
Pharmaceutical Sales	\$16.7 Billion
Mass Crassny Cales	\$31.7 Billion
Mass Grocery Sales	

scale necessary to invest in cold storage, transportation or supply chain development.

The U.S. Government should continue to use commercial dialogue talks to ease restrictions to business, especially in the areas of FDI. Promotion of infrastructure development in the form of a modern electricity grid should also be a top priority.

Government/Regulatory

India's cold chain challenges are some of the most complex in the world. A critical first step to embarking on a sustainable path to cold chain development is allowing market forces to prevail and develop infrastructure which can set the foundation for future cold chain development. The Indian Government however, is still setting policies to favor SME's in the urban retail sector or western retailers.

According to the World Economic Forum, the small-scale and fragmented retail market in India prevents the scale of capital investment necessary to create a modern logistics system. 44

India's regulatory burden is significantly more impactful than other developing countries where supermarkets have a much larger market share. One regulation imposed on multi-national firms is that 30 percent of products in a store must be sourced from India; international retailers have found this policy unfair as domestic firms to not need to comply with this requirement, making competition difficult

India's current tax scheme has encouraged logistics companies to create small stocking facilities located throughout India's 30 states. The complexities of taxation and the subsidization rules of India's national government prevent the large logistics companies from creating economies of scale through efficient hub-and-spoke type distribution systems.

Protectionist methods of the Indian Government have prevented many Western retailers from entering the market, and have kept the market share of modern supermarkets in India down to an abysmal .05 percent; lower than virtually all other countries in the developed or developing world and with a growth rate at 4.3 percent, ⁴⁵ it is unlikely much will change in the near future. In 2013, Walmart announced that it had indefinitely delayed its plans to open hundreds of superstores across India and thus terminated its joint venture with retail firm, Bharti.

E-commerce of food products has the potential to serve as a new market to improve consumer access to fresh foods within the country and boost investment into large scale cold chain systems. However, current legislation prevents FDI in business to consumer e-commerce sales.

Labor Force

Retailers such as Walmart claim that they would modernize logistics chains either by investing directly themselves or indirectly by collaborating with food

producers to invest in warehouses and trucks while establishing direct contacts with farmers. According to one farmer, "Our biggest problem is illiteracy. We don't know how to use technology." If western retailers can establish collaborative partnerships with farmers, India's labor force may begin to see improvements. ⁴⁶

While some optimistic estimates expect the cold chain sector to grow to \$12-\$15 billion over the next five years, many large retailers, and large cold chain service providers will likely continue to hold off investing the amount of large scale capital necessary efficiently serve this market until restrictions are lowered and there are greater opportunities for return on investment.

Infrastructure

India's transport system needs significant improvements; many roads linking farms and cities can cause considerable delays in distribution.

Electricity infrastructure is extremely lacking and serves as the first impediment to integrating cold chain capabilities across the supply chain; many farmers do not have access to electricity. In 2012 India had a multiday blackout which affected over 620 million people. Thus, companies involved with cold storage must invest in costly generators or risk losing their products in the event of electricity failure. Lastly, India's road, rail and port infrastructure is in dire need of repair, especially in rural areas.

Demand

India's domestic market size is strong, however, availability products at local suppliers can vary significantly due to a variety of transportation issues.











































